



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/517,648	03/03/2000	Kevin J. Zhang	OCL0001US	5710
22849	7590	10/21/2003	EXAMINER	
SCOTT W HEWETT 400 WEST THIRD STREET #223 SANTA ROSA, CA 95401			PASCAL, LESLIE C	
			ART UNIT	PAPER NUMBER
			2633	9
DATE MAILED: 10/21/2003				

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/517,648

Applicant(s)

ZHANG ET AL.

Examiner

Leslie Pascal

Art Unit

2633

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 August 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) 2,3 and 10-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,4-9 and 13-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 March 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 9.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

1. Applicant's election without traverse of species 3 in Paper No. 8 is acknowledged.
2. Although the applicant has elected species 3 which corresponds to figure 6, and said that the applicant believes that claims 1, 4-9 and 11-15, it does not appear that claims 11-12 read on this figure, because there is no additional optical component between the bypass input port and the bypass output port. These claims have not been examined.
3. The following is a quotation of the second paragraph of 35 U.S.C. 112:  

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claim 14 recites the limitation "the interleaf multiplexer" in line 6. There is insufficient antecedent basis for this limitation in the claim.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1 and 4-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mizrahi (US006348984).

Mizrahi teaches an input transmission line (15, figs. 5 and 6), a first wavelength selective filter (48<sub>1</sub>), a first segment (25'<sub>1</sub>) coupled to an optical component (optical amplifier, column 8, lines 35-38), a first remaining portion input to a second wavelength selective input filter (48<sub>2</sub>), a second segment (25'<sub>2</sub>) coupled to a second optical

component (48<sub>3</sub>), coupling the second remaining portion (25'<sub>i</sub>, where i=2 figure 5) to a bypass output port (drop port, element 40 is shown in figure 2), a bypass input port (add port, 43, 45) optically coupled to a first wavelength selective output filter (49<sub>1</sub>) which is configured to optically couple at least an optical signal from the bypass input port to a second wavelength selective output filter (49<sub>2</sub>) being configured to optically couple at least a modified first segment from the first optical component (49<sub>1</sub>) and the optical signal from the bypass input port (add port, 43, 45) to an output transmission line (15). Although the output of element 47 is shown as coming from element 49<sub>j</sub>, it would have been obvious to connect the output to any one of the wavelength selective filters. It would have been obvious to have the outputs coupled from element (49<sub>j</sub>) up to 49<sub>1</sub>. There would be no functional difference between connecting the filters from 49<sub>1</sub> to 49<sub>j</sub>. If the output (15) was connected to 49<sub>1</sub> or 49<sub>2</sub>, the system would operate as claimed. In regard to claims 4-7, see column 8, lines 46-49. If there is an amplifier and an add/drop module followed by an amplifier, this appears to have an amplifier with center tap (as disclosed by the applicant). In regard to claim 8, see lines 37-38. In that some of the paths would not have the add/drop multiplexers, it would appear that some would not have the "signal processing module".

6. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mizrahi as applied to claim 8 above, and further in view of either Jones et al (US006229935) or Islam (US006359725).

Although Mizrahi does not teach specifics about his add/drop module, Jones (column 2, lines 1-6) and Islam (figure 3) teach that it is well known for an add/drop device to

include dispersion compensating means. It would have been obvious to use a dispersion compensating means in the add/drop module of Mizrahi in order to compensate for dispersion in the system.

7. Claims 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mizrahi as applied to claim 1 above, and further in view of Duck et al (US006040932). Claim 13 is similar to claim 1. Claim 13 adds an interleaf demultiplexer. Although Mizrahi does not teach specifically how the signal that is received at input 15 is previously provided, in figure 7, Lou et al teach an interleaf demultiplexer. The outputs of this are wavelength division multiplexed signals. It would have been obvious if not necessary to further process these signals. It would have been obvious to have the output of element 620-1 of Lou et al as the input (15) of Mizrahi and have the demultiplexer (46) of Mizrahi act at the demultiplexer of Luo (630-1, 640-1, 640-2) in order to further process the signals (amplify, drop/add). In regard to claim 14, although a multiplexer is mentioned, since it lacks antecedent basis, it is unclear how the connections are made. Further, Lou et al teach a multiplexer at the output of the system. It would have been obvious to use an inverse of the demultiplexer (figure 7) as the multiplexer, since usually demultiplexers operate inversely to multiplexers.

8. Reference number 31 (Becker et al) was not considered because it was not in the Office file. A copy is requested in order for it to be considered.


9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Barber and Xu et al teach plural filters connected in cascade.

Art Unit: 2633

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leslie Pascal whose telephone number is 703-305-4922. The examiner can normally be reached on Monday, Friday 6:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on 703-305-4729. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

  
Leslie Pascal  
Primary Examiner  
Art Unit 2633

LP